

**REMARKS/ARGUMENTS**

The Office Action mailed April 5, 2005, has been received and reviewed. Claims 1-22 are currently pending in the application. Claims 1-22 stand rejected. Applicants have amended claims 1-9, 13, and 15-22 and respectfully request reconsideration of the application as amended herein.

Independent claims 1, 9, and 15 have been amended to recite the subject matter of claim 5. Claims 2-4, 6-8, 13, 16-18, and 20-22 have been amended to improve antecedent basis and to improve the clarity of the claims. Claims 5 and 19 have been amended to recite a portion of the subject matter previously recited in these claims. No new matter has been added.

**Information Disclosure Statement(s)**

Applicants note the filing of a Supplemental Information Disclosure Statement on April 25, 2005, and note that since it was filed after the mailing date of the instant Office Action, no copy of the PTO-1449 was returned with the outstanding Office Action. Applicants respectfully request that the information cited on the PTO-1449 be made of record and that a copy of the PTO-1449, as initialed by the Examiner, be returned to Applicants' counsel for their records.

**35 U.S.C. § 112 Claim Rejections**

Claims 1-8 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have amended claims 1-8 to recite an "imaging composition." Support for this amendment is found in the as-filed specification at at least paragraph [0021].

Applicants have also amended claims 1, 2, 5-7, 15, 16, and 19-21 to recite a "first antenna" and a "second antenna."

In light of these amendments, Applicants respectfully request that the rejections be withdrawn.

**35 U.S.C. § 103(a) Obviousness Rejections**

Obviousness Rejection Based on Either of European Patent No. EP 0716 135 to Hayashihara *et al.* or U.S. Patent No. 5,434,119 to Satake *et al.* in View of U.S. Patent No. 5,810,397 to Mehta *et al.*

Claims 1-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over either of European Patent No. EP 0716 135 to Hayashihara *et al.* (“Hayashihara”) or U.S. Patent No. 5,434,119 to Satake *et al.* (“Satake”) in view of U.S. Patent No. 5,810,397 to Mehta *et al.* (“Mehta”). Applicants respectfully traverse this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for an obviousness rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The obviousness rejection of claims 1-22 is improper because the cited references do not teach or suggest all of the claim limitations and do not provide a motivation to combine to produce the claimed invention.

Hayashihara teaches a laser marking composition that includes an ultraviolet curing resin, a leuco dye, and a color developer. Hayashihara at p.2, paragraph [0005]. The laser marking composition also includes additives, such as sensitizers, fillers, or colorants. *Id.* at p. 5, paragraph [0016]. One example of a colorant is carbon black. *Id.* at p. 5, paragraph [0018]. The laser marking composition is coated on a substrate and energy is applied to cure the coating. *Id.* at p. 6, paragraph [0020].

Satake teaches a transparent recording medium that includes a transparent supporting medium and a transparent recording layer. Satake at column 2, lines 47-51. The transparent recording layer includes a developer, a leuco dye, a near-infrared absorbing agent, and a binder. *Id.* at the Abstract. The near-infrared absorbing agent is an inmonium or diinmonium compound,

a dithiol nickel complex, a cyanine dye, such as 1,1,5,5-tetrakis(p-dimethylaminophenyl)-3-methoxy-1,4-pentadiene, or 1,1,5,5-tetrakis(p-dimethylaminophenyl)-3-[2,2-bis(p-dimethylaminophenyl)vinyl]-1,4-pentadiene, a squalerium dye, a naphthoquinone dye, phthalocyanine, or a naphthalocyanine compound. *Id.* at column 27, lines 44-58.

Mehta teaches a thermally imageable business record that includes a substrate and a thermally imageable coating. Mehta at column 2, lines 31-36. The thermally imageable coating provides a first color to the thermally imageable business record when activated. *Id.* A desensitizing composition or opaque ink is applied to a selected area of a surface of the thermally imageable business record. *Id.* The desensitizing composition or opaque ink is overcoated with an additional thermally imageable coating. *Id.* at column 2, lines 36-40. The desensitizing composition is an aqueous-based ink. *Id.* at column 5, lines 35-43. The additional thermally imageable coating includes a color former, a color developer, a sensitizer, and a binder. *Id.* at column 6, line 36 through column 7, line 13. When activated, the additional thermally imageable coating provides a second, different color, to the thermally imageable business record. *Id.* at column 2, lines 40-45.

Hayashihara, Satake, and Mehta, when combined, do not teach or suggest all of the limitations of claim 1 because they do not teach or suggest the limitation of "wherein each of the first antenna and the second antenna is independently selected from at least one compound selected from the group consisting of quinone, a metal complex, azo, croconium, a squarilium dye, a hexafunctional polyester oligomer, [and the recited chemical formulas]." The latter chemical formulas are shown in claim 1 but are not reproduced in the body of this response for the sake of brevity. Hayashihara does not teach or suggest this limitation because Hayashihara does not teach or suggest the compounds recited in the Markush group of claim 1. Even assuming *arguendo* that the Examiner's statement that carbon black is a radiation absorbing compound is correct, Hayashihara still does not teach or suggest the recited compounds. Satake also does not teach or suggest the recited compounds. While Satake teaches that its transparent recording layer includes a near-infrared absorbing agent, the agents taught in Satake do not include the compounds recited in the Markush group of claim 1. In addition, Mehta does not teach or suggest that its thermally imageable business record includes antennae. Therefore, Mehta necessarily does not teach or suggest the recited antennae.

Since the cited references, when combined, do not teach or suggest all of the claim limitations, the obviousness rejection of claim 1 is improper and should be withdrawn.

Claims 2-8 are allowable, *inter alia*, as depending from an allowable base claim.

Claim 2 is further allowable because the cited references do not teach or suggest that the first antenna and the second antenna are different compounds.

Claim 5 is further allowable because the cited references do not teach or suggest the recited antennae.

The cited references also do not provide a motivation to combine to produce the claimed invention. To provide a motivation or suggestion to combine, the prior art or the knowledge of a person of ordinary skill in the art must “suggest the desirability of the combination” or provide “an objective reason to combine the teachings of the references.” M.P.E.P. § 2143.01. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *Id.* (emphasis in original).

The Examiner states that use of a sensitizer, as taught in the secondary reference, “in the imaging layers of the primary references would have been obvious to one of ordinary skill in this art in the absence of unexpected results.” Office Action of April 5, 2005, p. 2. However, even assuming *arguendo* that the Examiner’s statement is true, the claimed invention would still not be produced because the limitation discussed above would be lacking

The cited references also do not teach or suggest all of the limitations of independent claims 9 and 15. Since each of claims 9 and 15 recites substantially the same limitation as discussed above for claim 1, claims 9 and 15 are allowable for substantially the same reasons as claim 1.

Claims 10-14 and 16-22 are allowable, *inter alia*, as depending from an allowable base claim, namely claims 9 and 15 respectively.

Claim 11 is further allowable because the cited references do not teach or suggest melting an activator, dissolving an antenna in the activator to form an activator/antenna melt, cooling the activator/antenna melt to ambient temperature, and grinding the cooled activator/antenna melt to a powder.

Claim 12 is further allowable because the cited references do not teach or suggest that the cooled activator/antenna powder comprises particle sizes below 50  $\mu\text{m}$ .

Claim 13 is further allowable because the cited references do not teach or suggest providing a melted accelerator, dissolving an antenna into the melted accelerator, dissolving leuco-dye into the melted accelerator, cooling the leuco-dye/antenna/accelerator melt to a solid state, and grinding the cooled leuco-dye/antenna/accelerator melt to a powder.

Claim 14 is further allowable because the cited references do not teach or suggest that the cooled leuco-dye/antenna/accelerator powder comprises particle sizes below 20  $\mu\text{m}$ .

Claim 16 is further allowable because the cited references do not teach or suggest that the first antenna and the second antenna are different compounds.

Claim 19 is further allowable because the cited references do not teach or suggest the recited antennae.

**ENTRY OF AMENDMENTS**

The amendments to claims 1-9, 13, and 15-22 should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add new matter to the application.

**CONCLUSION**

Claims 1-22 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain that might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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